

LISTING OF THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended) A method of increasing image processing performance, comprising: by explicitly

copying a first instance of an image data of an image existing in an I/O RAM into an extra second copy of said image data in a buffer in main memory, by multiple calls to a memory copy function copying each image line of the image to a buffer line of the buffer;

prior to performing CPU intensive operations on the data copied from said image, wherein the CPU access is made directly to the extra second copy of the image data in main memory and not to on the first instance image data in said I/O RAM; and after performing said CPU intensive operations, copying the operated on image data from the buffer in main memory to the I/O RAM, by multiple calls to the memory copy function copying each buffer line of the buffer to an image line.

whereby image processing time is reduced compared to the image processing time required if the CPU intensive operations were performed on the first instance of the image in the I/O RAM.

2. (Previously Presented) The method of claim 1 wherein said main memory is cached.

3. (Previously Presented) The method of claim 1 wherein said main memory is cached in a CPU cache.

4. (Previously Presented) The method of claim 1 wherein said main memory is cached in an external cache.

5. (Currently Amended) The method of claim 1 wherein said copying ~~[[in]]~~ comprises copying using accomplished by DMA circuitry.

6-10. (Cancelled).

11. (Previously Presented) The method of claim 1 wherein said I/O RAM is associated with a video digitizer.

12-15. (Cancelled).

16. (Currently Amended) A machine for image processing comprising:

- a) ~~—a main memory for storing an~~ copied image data of an image;
- b) ~~—a processor for~~ performing computing intensive processing on said copied image data stored in said main memory;
- c) ~~—an I/O device~~ including I/O RAM for storing source image data of said copied image data stored in said main memory; and
- d) ~~—a means for copying image data between said main memory and said I/O device by copying each image line from said I/O device to a buffer line of a buffer in the main memory, and each buffer line of the buffer in the main memory to an image line in the I/O device;—wherein said image data is copied from said I/O device to a second copy of said image data in a buffer in said main memory prior to being processed by said processor or wherein said processor processes said image data using a buffer in said main memory before copying the processed image data from said main memory to said I/O device;—~~
whereby image processing time is reduced.

17. (Original) The machine of claim 16 wherein said I/O device is a means for inputting an image.

18. (Original) The machine of claim 16 wherein said I/O device is a means for outputting an image.

19. (Currently Amended) The machine of claim 16 wherein said processor is configured to execute programs to enhance, compress, encrypt, or reformat said image data.

20. (Currently Amended) The machine of claim 16 wherein said processor is configured to execute programs to decrypt, decompress, or enhance said image data.

21. (Cancelled).

22. (Currently Amended) A machine for image processing comprising:

a) — an image input device having including storage medium to store image data of an image;

a main memory to store copied version of said image data stored in said image input device;

b) — a processor coupled to the image input device and the main memory for performing computing intensive processing operation on said image data, connected to said input device; and

c) — a main memory, connected to said processor;

d) — a means for copying said image data between from said input device to a second copy of said image data in a buffer in and said main memory by copying each image line from said input device to a buffer line of a buffer in said main memory, and each buffer line of a buffer in said main memory to an image line in said input device prior to being processed by said processor, whereby image processing time is reduced compared to the image processing time required if the processor processed the first copy of the image data in the input device.

23. (Currently Amended) The machine of claim 22 wherein said processor is configured to performs image processing to enhance or reformat said image data.

24. (Currently Amended) The machine of claim 22 wherein said processor is configured to performs image processing to encrypt said image data.

25. (Currently Amended) The machine of claim 22 wherein said processor is configured to performs image processing to compress said image data.

26.-33. (Cancelled).